REMARKS

35 U.S.C. § 112 Rejections

The Examiner has rejected claims 1-6, 9, 12-17, 20, 23, 25, 27, and 28 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner stated that in claims 1, 12, 23, and 28, "the frame comprising" is unclear because it lacks clear antecedent basis.

Claims 1, 12, 23, and 28 have been amended to recite the limitation "the one frame comprising" as suggested by the Examiner.

The Examiner stated in claims 2, 13, 25, and 30, the "third, fourth, or fifth micro-frame" is unclear because it cannot be determined what relationship is to be inferred regarding first and second micro-frames.

Claims 1, 12, 24, and 29 have been amended to include first and second micro-frames, thereby rendering claims 2, 13, 25, and 30 clear.

The Examiner stated that in claims 3, 14, and 27 the period is unclear because the notion of a reoccurrence implicit in "period" cannot be established in supporting recitation.

Claims 3, 14, and 27 have been cancelled.

The Examiner stated in claims 4-6 and 15-17, all recitation of the "start split" and "complete split" is unclear because it cannot be determined what initiation the start refers to in the context of other recitation, nor can it be determined what is being split.

Inventor(s): Brian A. Leete, et al.
Application No.: 09/965,698   - 11/18-   Examiner: Knoll, Clifford H.
Art Unit: 2112

Claims 4-6 and 15-17 have been amended to include "start split transactions" and "complete split transactions."

The Examiner stated in claims 9 and 20, "their period" is unclear because it lacks antecedent bases.

Claims 9 and 20 have been cancelled.

The Examiner stated that in claim 12, the "machine-readable medium that provides instructions" is unclear because it cannot be determined whether the instructions are intended as part of the medium.

Claim 12 has been amended to include "a machine-readable medium that includes instructions."

Applicant, accordingly, respectfully requests withdrawal of the rejections of claims 1, 2, 4-6, 12-17, 23, 25, and 28 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

35 U.S.C. § 101 Rejections

The Examiner has rejected claims 12-22 under 35 U.S.C. § 101 because the language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. In the claims the

recitation of "provides instructions" does not clearly establish the subsequent

limitations recited to be an integral part of the claimed invention.

Claim 12 has been amended to include "a machine-readable medium that

includes instructions."

Claims 13, 15-19, 21, and 22 are dependent on claim 12 and should be allowable

for the same reasons stated above.

Applicant, accordingly, respectfully requests withdrawal of the rejections of

claims 12, 13, 15-19, 21 and 22 under 35 U.S.C. § 101.

35 U.S.C. § 102 Rejections

The Examiner has rejected claims 1-22 under 35 U.S.C. § 102(b) as being

anticipated by Baker.

Claims 1 and 12 include generating primary and secondary queue heads to

represent a single endpoint. Specifically, claims 1 and 12 include the limitation

"generating a primary interrupt queue head and a secondary interrupt queue head, the

primary and secondary interrupt queue heads to represent an endpoint."

Baker does not disclose generating primary and secondary interrupt queue

heads to represent a single endpoint. Baker discloses a personal computer system that

includes a digital signal processor subsystem that is connectable to a plurality of

application specific hardware devices and is operable under a real-time operating

system to concurrently handle a plurality of different signal processing functions on a

real-time basis (Abstract). As illustrated in Fig. 1, computer 10 comprises a

microprocessor 12 connected to a local bus 14 which, in turn, is connected to a bus interface controller 16, an optional math co-processor 18, and a small computer system interface adapter 20 (Col. 4, lines 9-14). Referring to Fig. 8, during operation of the system, a real-time operating system 300 is responsive to PC requests 440 and to interrupts 442 to perform multitasking in the following general manner. The request or interrupt identifies the task to be performed and RTOS 300 accesses by step 444 the RTOS data area 322 to look up the address of the specific Task Control Block for the task (Col. 12, lines 33-39). Queue 358 includes both real-time and non-real-time tasks, the latter being executed when there are no real-time tasks remaining in the queue. Tasks are dequeued and executed from the top of the queue and as each one is dequeued, the remaining real-time tasks are moved towards the top to await their turn (Col. 12, lines 47-53). Baker thus discloses generating and initializing multiple queue heads that represents multiple tasks. Specifically, Baker does not disclose generating primary and secondary interrupt queue heads to represent a single endpoint.

Therefore, claims 1 and 12 are not anticipated by Baker because claims 1 and 12 include a limitation that is not disclosed in Baker.

Claims 2, 4-8, 10-13, 15-19, 21, and 22 are dependent on either claim 1 or claim 12 and should be allowable for the same reasons stated above.

Claims 3, 9, 14, and 20 have been cancelled.

Applicant, accordingly, respectfully requests withdrawal of the rejections of claims 1, 2, 4-8, 10-13, 15-19, 21, and 22 under 35 U.S.C. § 102(b) as being anticipated by Baker.

The Examiner has rejected claims 1-30 under 35 U.S.C. § 102(e) as being

anticipated by Wooten.

Claims 1, 12, 23, and 28 include generating primary and secondary interrupt

queue heads to represent a single endpoint. Specifically, claims 1, 12, 23, and 28 include

the limitation generating "a primary interrupt queue head and a secondary interrupt

queue head, the primary and secondary interrupt queue heads to represent the

endpoint."

Wooten does not disclose generating primary and secondary interrupt queue

heads to represent a single endpoint. Wooten discloses a computer system that

includes a serial bus host controller and a host controller driver that provides data

structures, having linking mechanisms for processing lists of descriptors and alternate

buffer configurations, for the host controller to operate on (Abstract). Each serial bus

transaction begins when the host controller 330, on a scheduled basis, sends a serial bus

packet describing the type of transfer, the serial bus device address, and the endpoint

number (Col. 6, lines 38-41). This packet is the token packet. The serial bus endpoint

that is addressed selects itself by decoding the appropriate addressed fields (Col. 6, lines

41-43). In a given transaction, data is transferred whether from the host to a device or

from a device to a host. The interruption of data transfer is specified in the token

packet. The source of the transfer then sends a data packet or indicates that has no data

to transfer. The destination responds with a handshake packet indicating whether the

transfer was successful. (Col. 6, lines 45-49). Wooten thus discloses sending a serial bus

Inventor(s): Brian A. Leete, et al.
Application No.: 09/965,698   - 15/18-

Examiner: Knoll, Clifford H.
Art Unit: 2112

packet for each serial bus transaction. Specifically, <u>Wooten</u> does not disclose generating primary and secondary interrupt queue heads to represent a single endpoint.

Therefore, claims 1, 12, 23, and 28 are not anticipated by <u>Wooten</u> because claims 1, 12, 23, and 28 include a limitation that is not disclosed in <u>Wooten</u>.

Claim 2, 4-8, 10-13, 15-19, 21-26, 29, and 30 are dependent on either claim 1, claim 12, claim 23, or claim 28 and should be allowable for the same reasons as stated above.

Claims 3, 9, 14, 20, and 27 have been cancelled.

Applicant, accordingly, respectfully requests withdrawal of the rejections of claims 1, 2, 4-8, 10-13, 15-19, 21-26, and 28-30 under 35 U.S.C. § 102(e) as being anticipated by <u>Wooten</u>.

The Examiner has rejected claims 1-30 under 35 U.S.C. § 102(e) as being clearly anticipated by <u>Leete</u>.

Claims 1, 12, 23, and 28 include generating primary and secondary interrupt queue heads to represent a single endpoint. Specifically, claims 1, 12, 23, and 28 include the limitation generating "a primary interrupt queue head and a secondary interrupt queue head, the primary and secondary interrupt queue heads to represent the endpoint."

<u>Leete</u> does not disclose generating primary and secondary interrupt queue heads to represent a single endpoint. <u>Leete</u> discloses a device including a host controller capable of attaching a quantity of queue heads to a frame list before any transaction descriptors (Abstract). As illustrated in Fig. 9, block 910 determines whether a queue

head max packet size is less than or equal to a predetermined size and that the period is greater or equal to a predetermined scheduled window (Para. 0038). If block 910 determines that a queue head max packet size is not equal or less than a predetermined size and/or that the period is not greater or equal to a predetermined schedule window, then process 900 continues with block 950. Block 950 places the queue head in the interrupt tree. Block 940 then determines whether initialization is complete or not, and if block 940 determines that all queue heads are not processed, the process returns to block 910. (Paras. 0039 and 0040). Leete thus discloses a method for determining whether a queue head has less than or equal to a predetermined packet size and whether a period is one of greater than and equal to a predetermined window. Specifically, Leete does not disclose generating primary and secondary interrupt queue heads to represent a single endpoint.

Therefore, claims 1, 12, 23, and 28 are not anticipated by Leete because claims 1, 12, 23, and 28 include a limitation that is not disclosed in Leete.

Claims 2, 4-8, 10-13, 15-19, 21-26, 29, and 30 are dependent on either claim 1, claim 12, claim 23, or claim 28 and should be allowable for the same reasons stated above.

Claims 3, 9, 14, 20, and 27 have been cancelled.

Applicant, accordingly, respectfully requests withdrawal of the rejections of claims 1, 2, 4-8, 10-13, 15-19, 21-26, and 28-30 under 35 U.S.C. § 102(e) as being clearly anticipated by Leete.
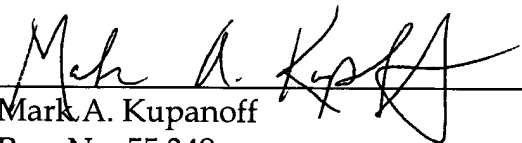
Applicant respectfully submits that the present application is in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call Mark A. Kupanoff at (408) 720-8300.

Pursuant to 37 C.F.R. 1.136(a)(3), applicant(s) hereby request and authorize the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 02-2666.

Respectfully submitted,

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Date: July 26, 2004

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